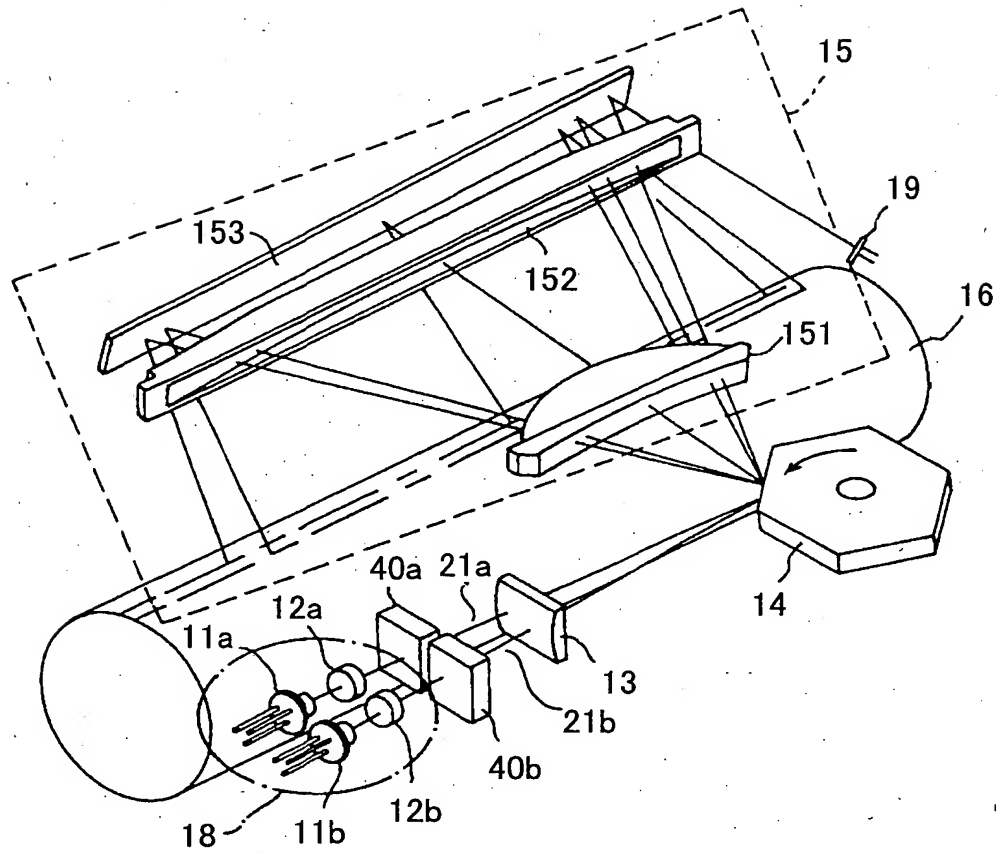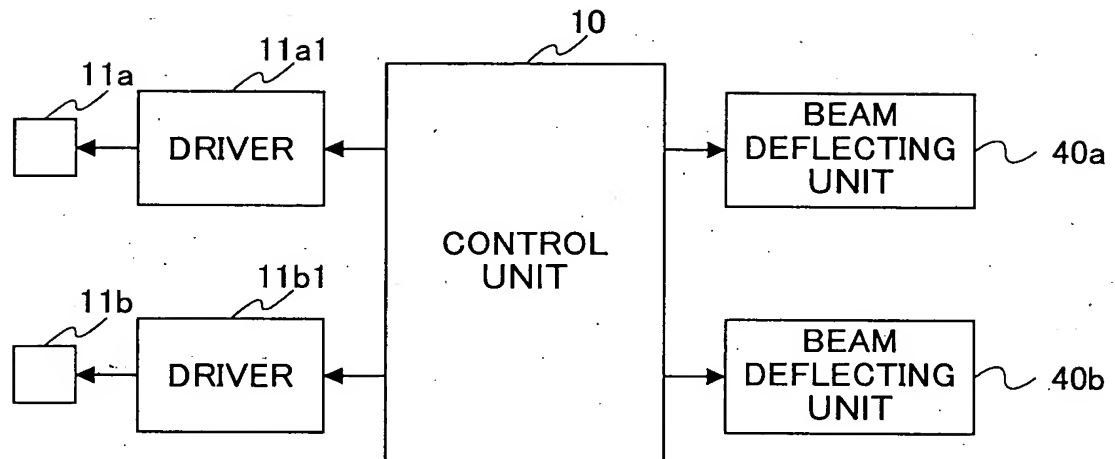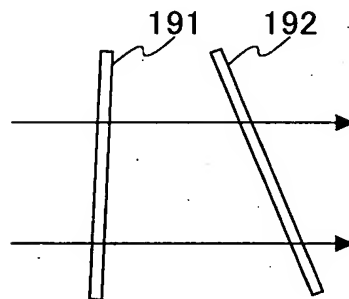# FIG.1A

FIG.1B

FIG.1C

FIG.2A FIG.2B FIG.2C
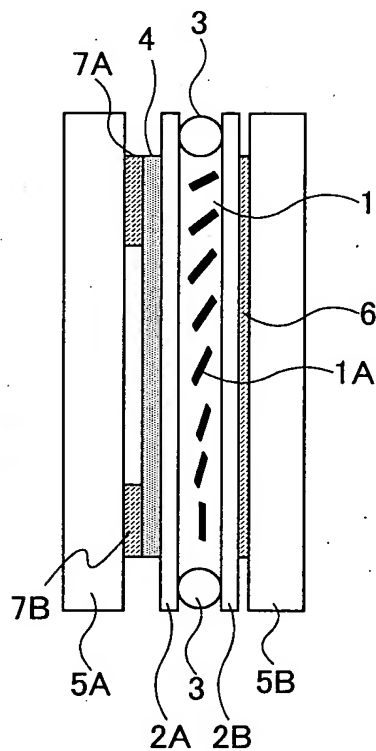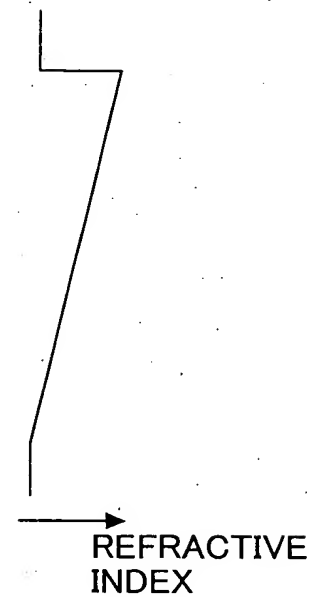
FIG.2D
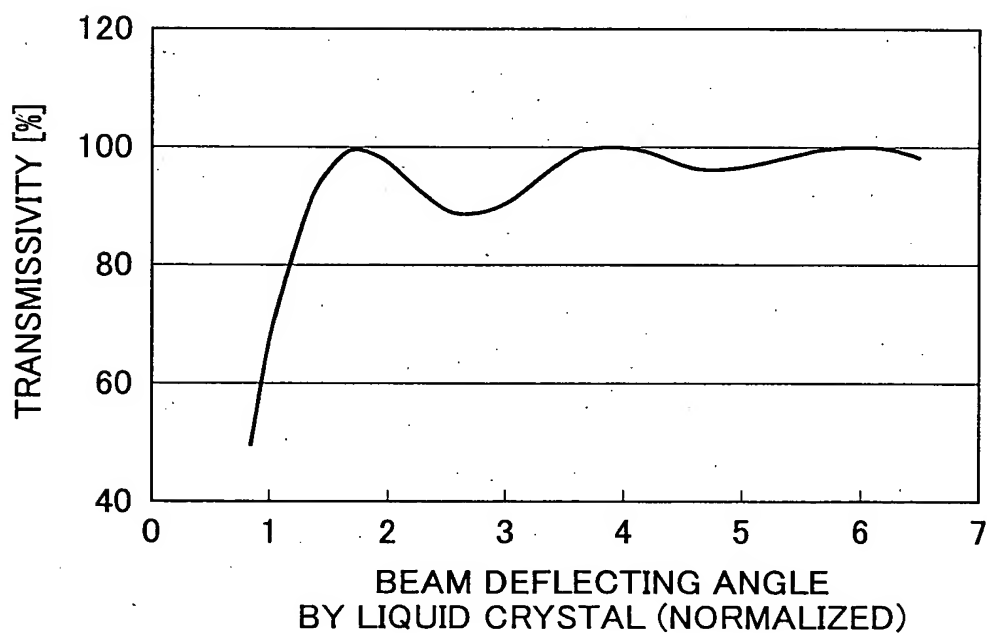
BEAM DEFLECTING ANGLE
BY LIQUID CRYSTAL (NORMALIZED)

FIG.3A

FIG.3B

FIG.3C

FIG.4A

FIG.4B

FIG.5

FIG.6

FIG.7A

CONTROLLER ~22

D1 D2 D3 D4 D5 D6 D7 D8 D9 D10

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10

} 40A

FIG.7B

P1 P2 P3 P4 P5 P6 P7 P8 P9 P10

23

23S

←————————RY————————→

FIG.7C

S1 S2 S3 S4 S5 S6 S7 S8 S9 S10

(IDEAL SCAN LINE)

FIG.7D

Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8 Y9 Y10

FIG.8

FIG.9
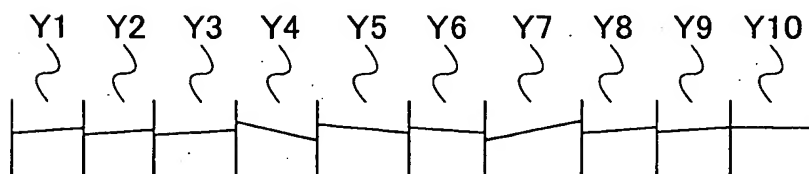
FIG.10

18

211a

243

211b

212a

212b

FIG.11

245

245

254

222a   222

γ

254a

255
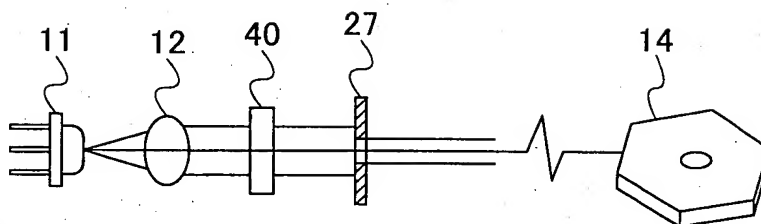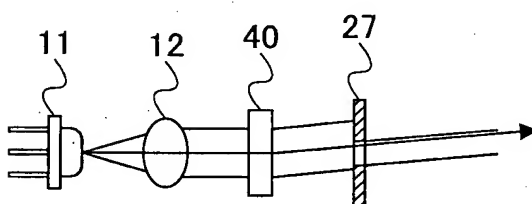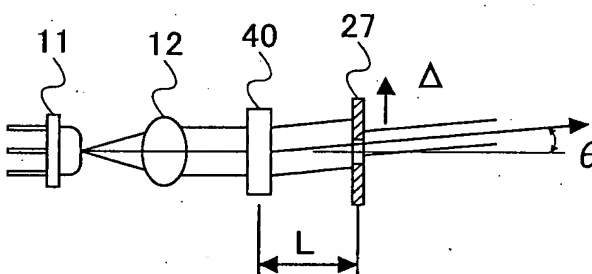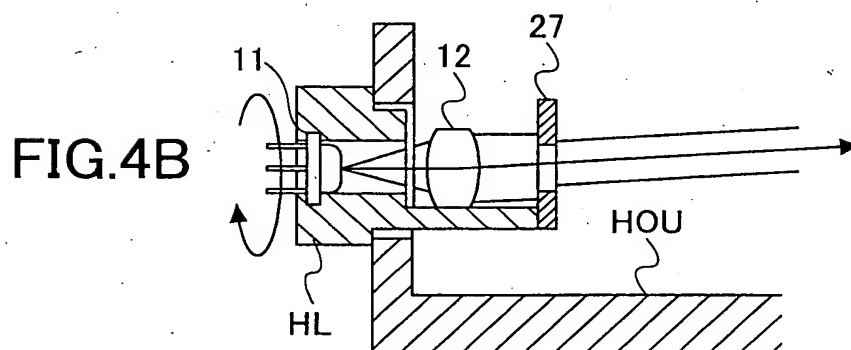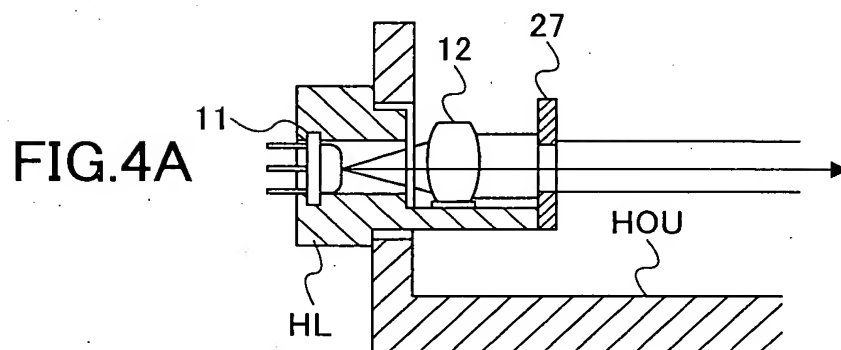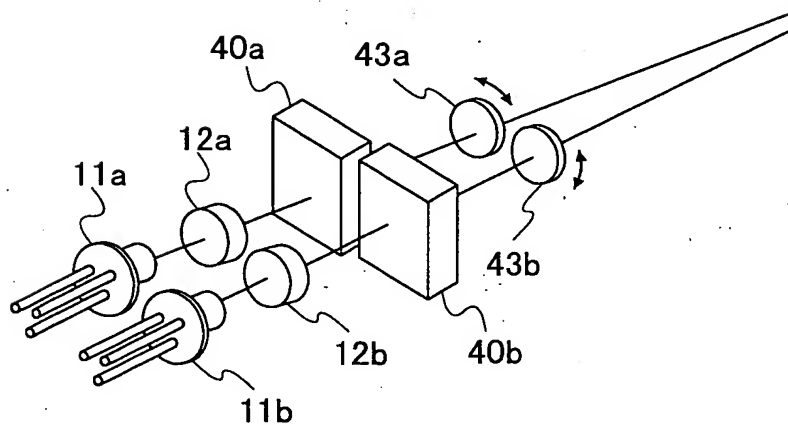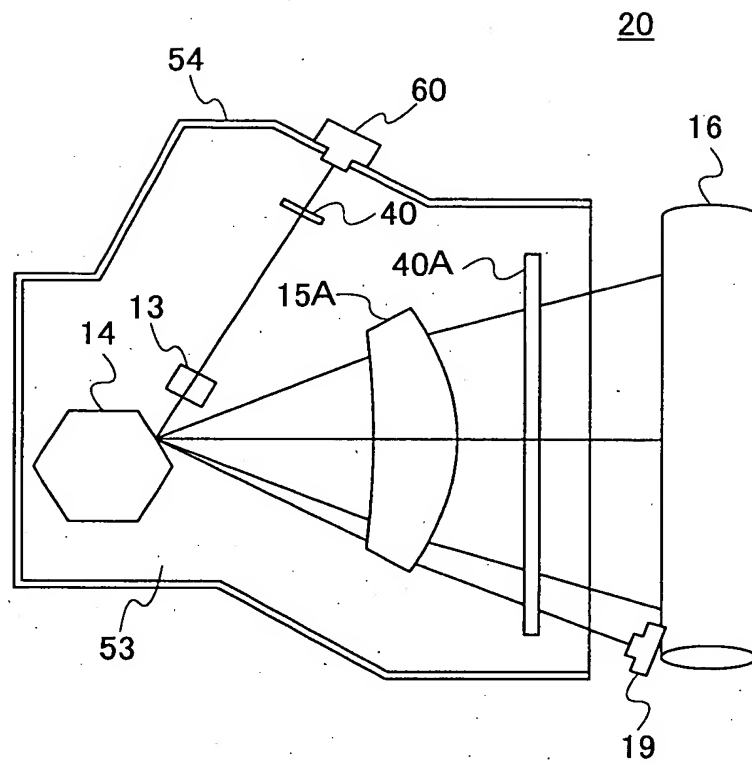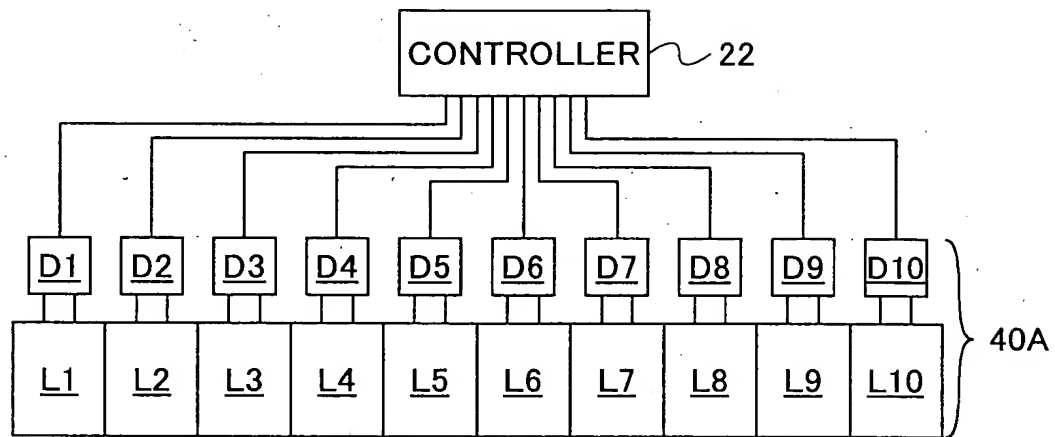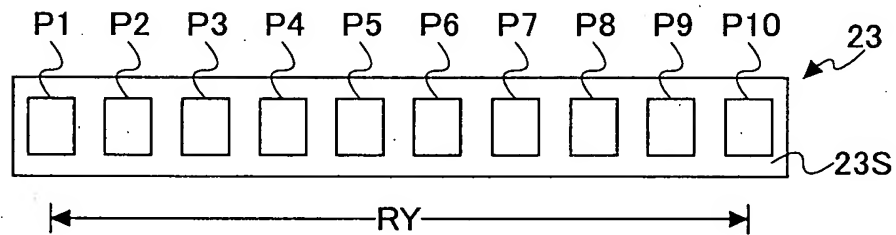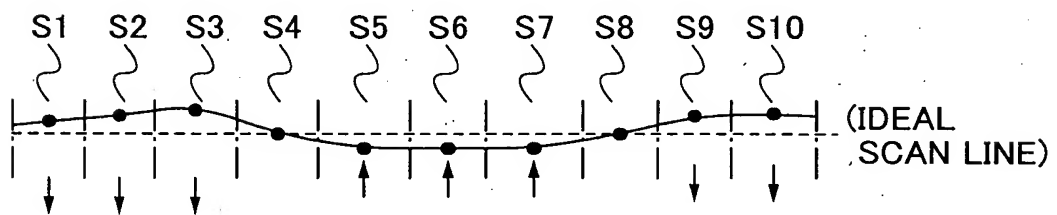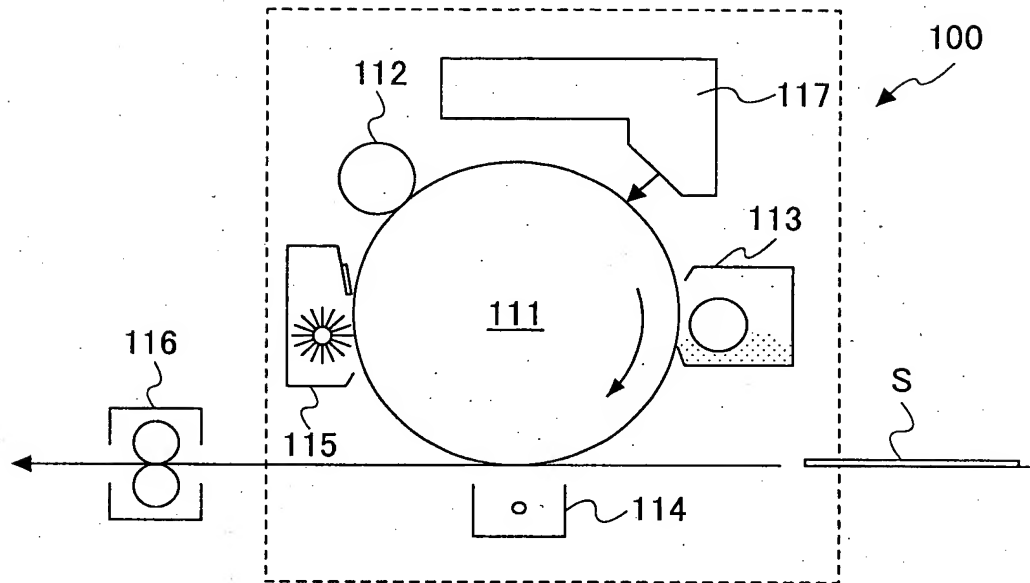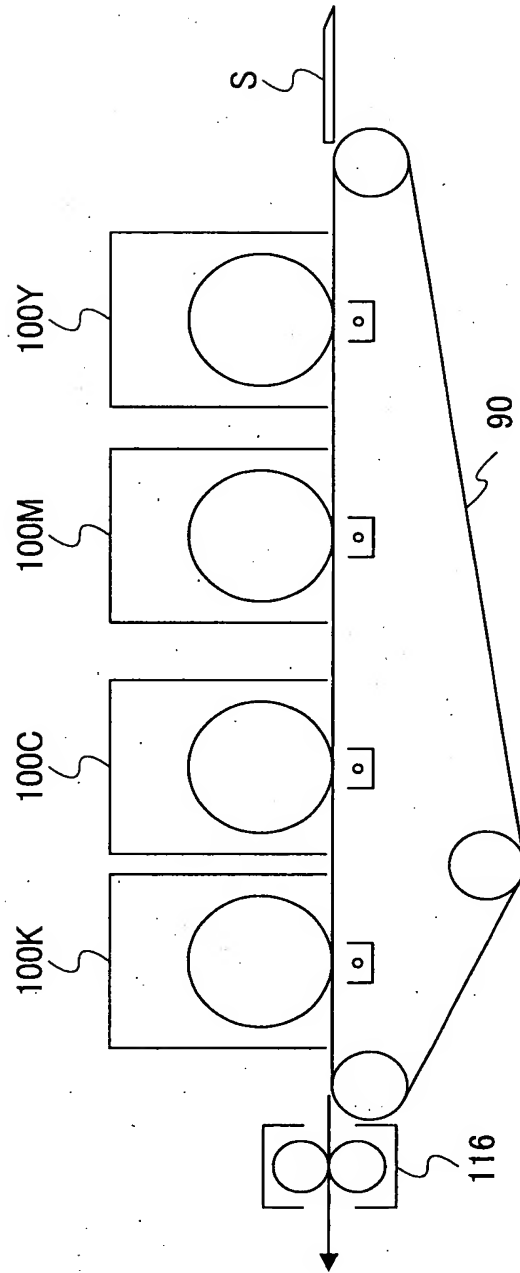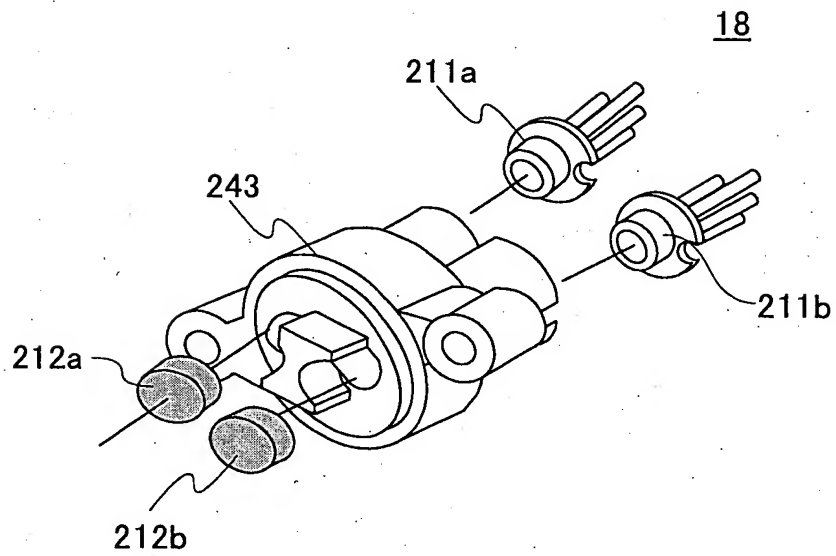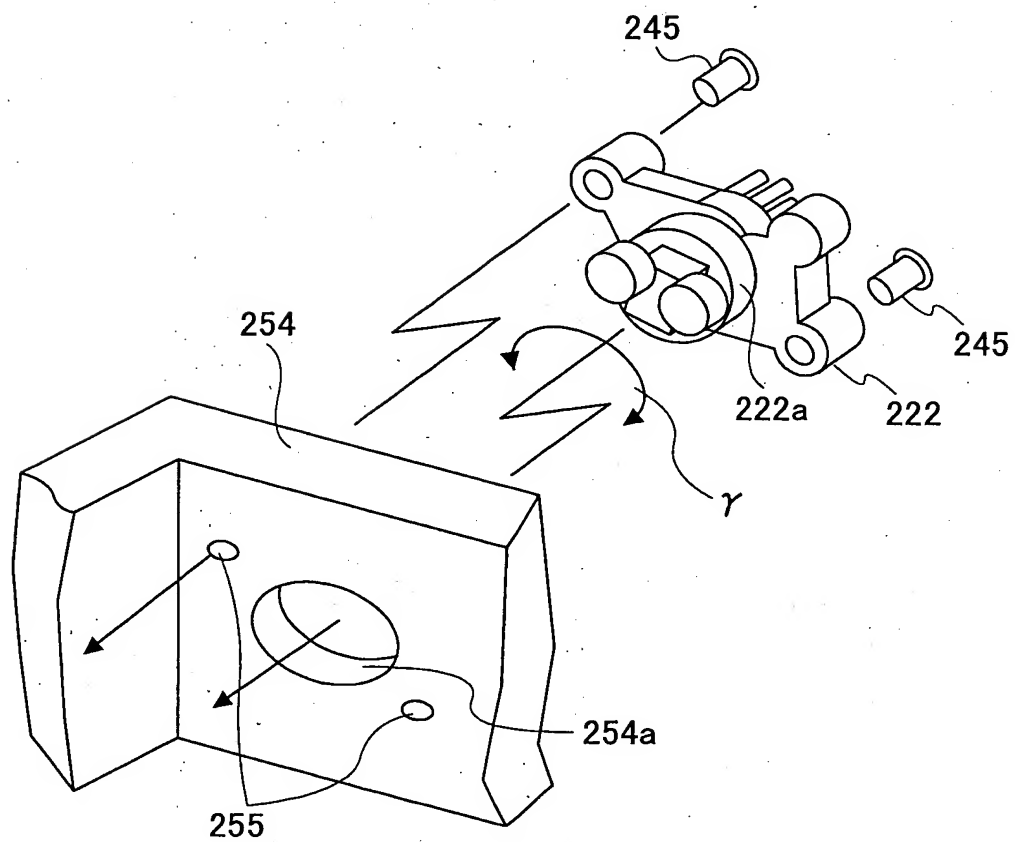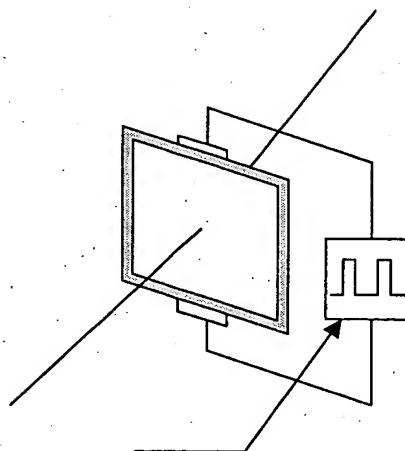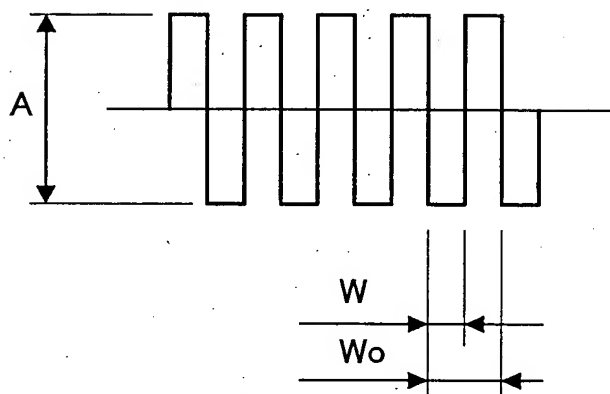
FIG.12A

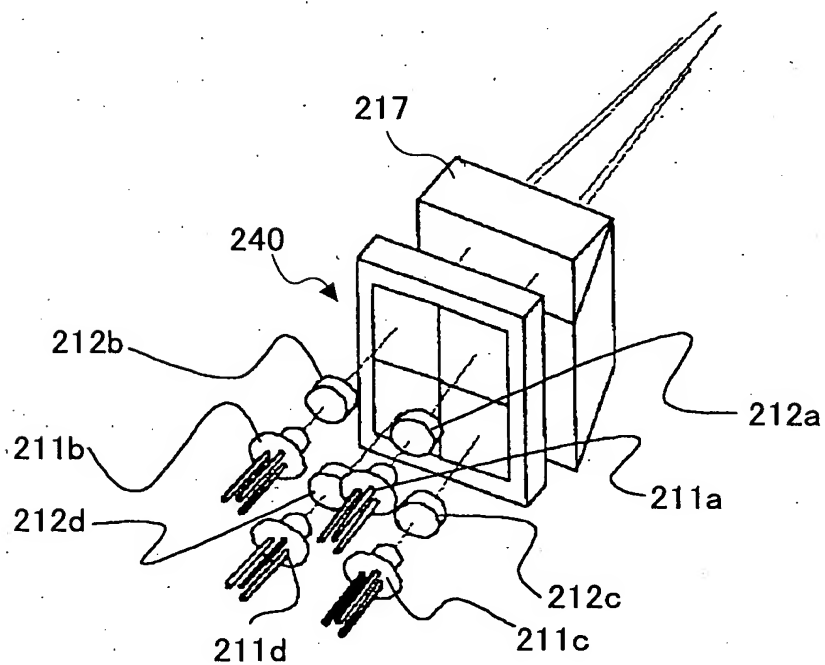FIG.12B

FIG.12C

FIG.12D

FIG.13

FIG.14A

FIG.14B

FIG.15A

240

a2
a1
a3
a4

FIG.15B

240

b2
NON-EFFECTIVE
AREA
b3
b4

FIG.15C

223

240b
240a
240c
240d

FIG.15D

223

240b
THROUGH
HOLE
240c
240d

FIG.15E

e1
e2
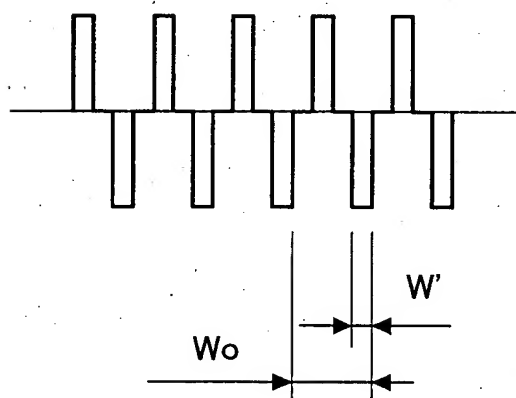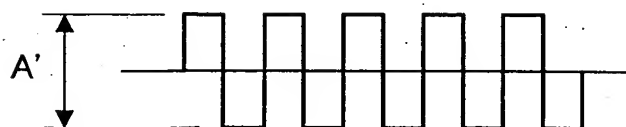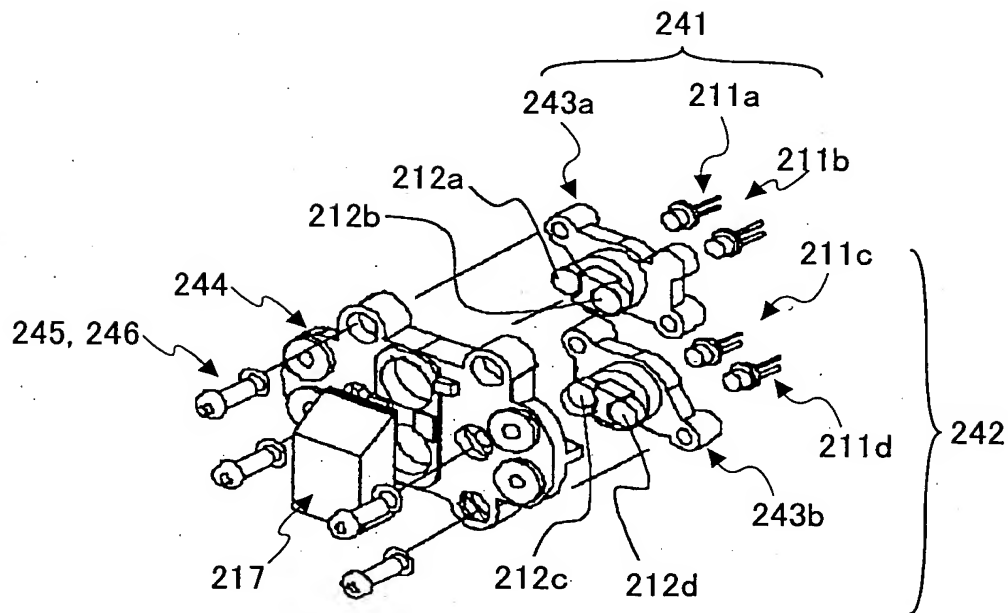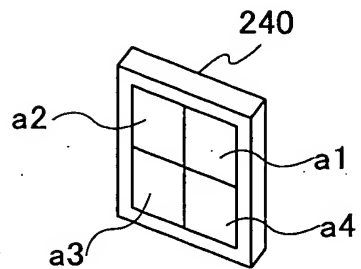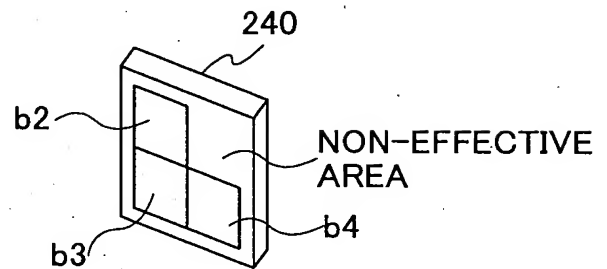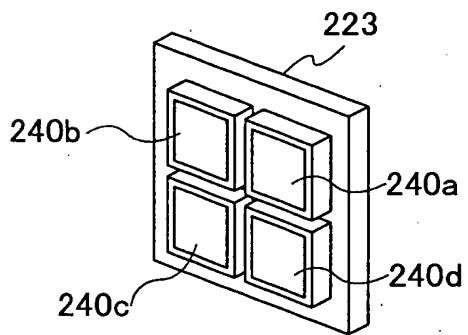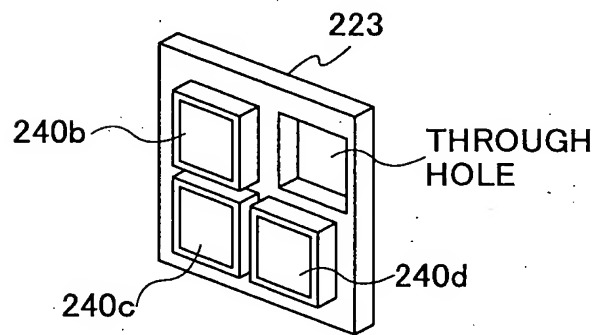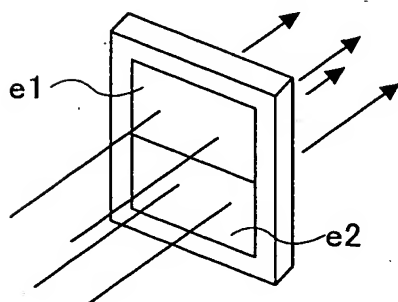
FIG.15F
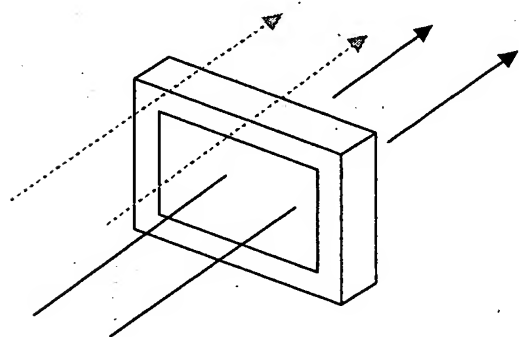
FIG.16
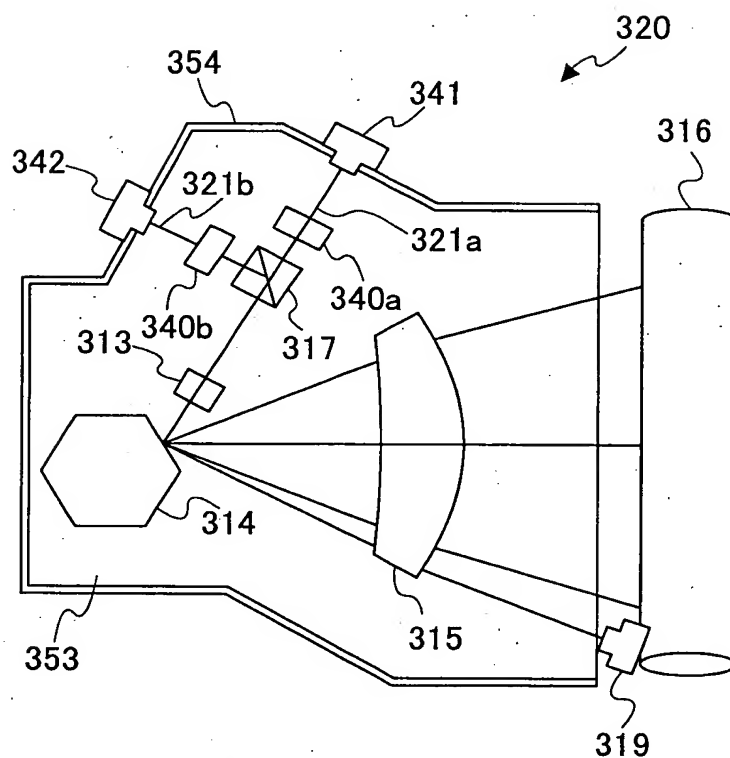
FIG.17
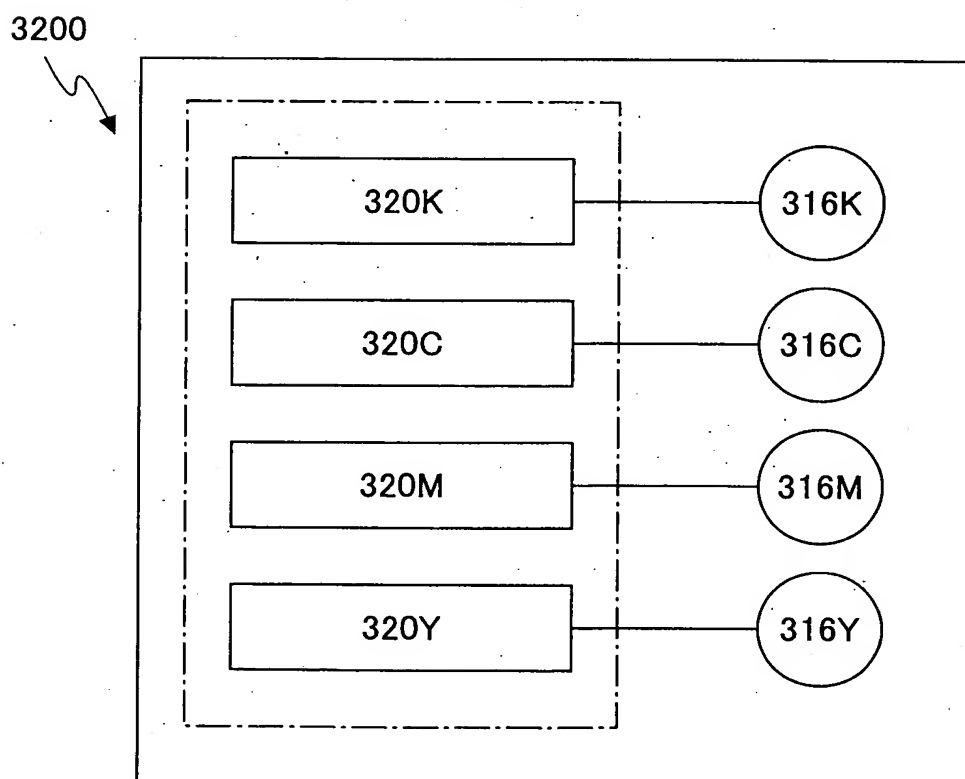
FIG.18A
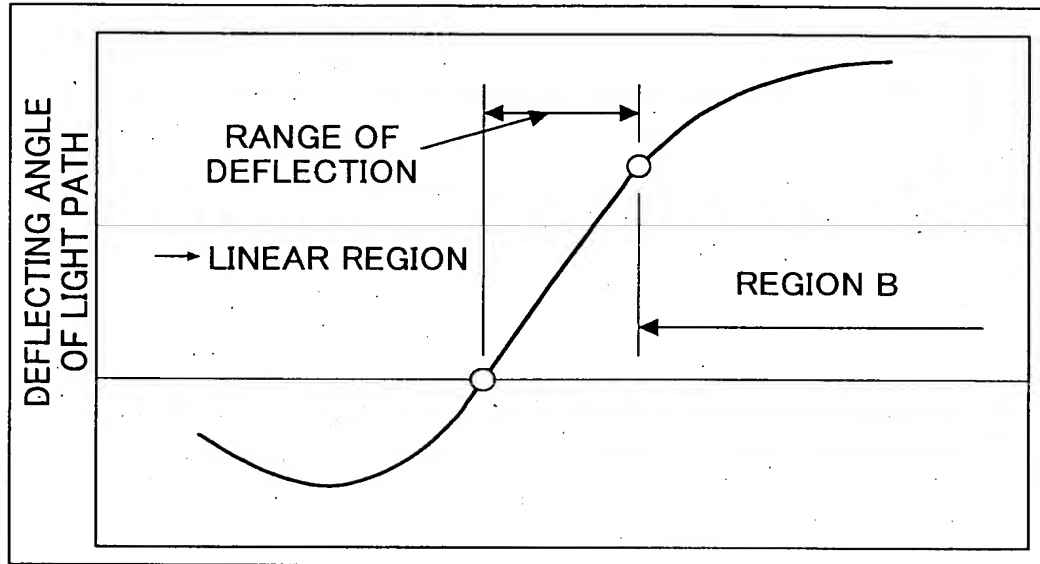
PARAMETER u=2 × △n × d × λ

FIG.18B

PARAMETER u=2 × △n × d × λ

FIG.19

FIG.20

FIG.21

FIG.22